

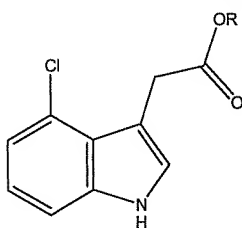
### AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-4 (Canceled)

Claim 5. (Currently Amended) A root-inducing system comprising:

a solution comprising water and a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl;

a rootless cutting having at least one leaf and a stem planted in soil;

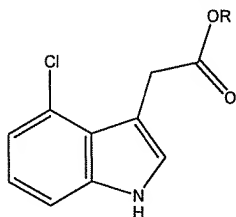
wherein the root inducing compound of formula I is in a concentration sufficient to induce the generation of roots from the rootless cutting when the solution is applied to the at least one leaf of the rootless cutting; and

a sprayer configured to apply the solution to at least one leaf of the rootless cutting and not to the stem in the soil.

Claim 6. (Previously Presented) The root-inducing system of claim 5 wherein the compound has a concentration of  $10^{-7}$  to  $10^{-2}$  M.

Claim 7. (Currently Amended) A root-inducing system comprising:

a solution comprising water, an alcohol, and a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl;

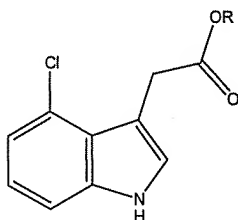
a rootless cutting having at least one leaf and a stem planted in soil;

wherein the root inducing compound of formula I is in a concentration sufficient to induce the generation of roots from the rootless cutting when the solution is applied to the at least one leaf of the rootless cutting; and

a sprayer configured to apply the solution to at least one leaf of the rootless cutting and not to the stem in the soil.

Claim 8. (Previously Presented) A root-inducing system comprising:

a solution comprising water, a polyoxyethylenealkyl phenyl ether, and a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl;

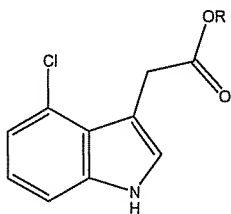
a rootless cutting having at least one leaf;

wherein the root inducing compound of formula I is in a concentration sufficient to induce the generation of roots from the rootless cutting when the solution is applied to the at least one leaf of the rootless cutting; and

a sprayer to apply the solution to the rootless cutting.

Claim 9. (Previously Presented) The root-inducing system of claim 5 further comprising:  
an organic solvent.

Claim 10. (Previously Presented) A root-inducing system comprising:  
a solution comprising water, xylene, and a root-inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl;

a rootless cutting having at least one leaf;

wherein the root-inducing compound of formula I is in a concentration sufficient to induce the generation of roots from the rootless cutting when the solution is applied to the at least one leaf of the rootless cutting; and

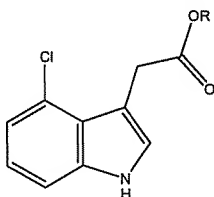
a sprayer to apply the solution to the rootless cutting.

Claim 11. (Previously Presented) The root-inducing system of claim 5 further comprising:

a beneficial agricultural chemical, wherein the beneficial agricultural chemical is selected from the group consisting of fertilizers, spreading agents and plant growth regulators.

Claim 12. (Canceled)

Claim 13. (Previously Presented) A root-inducing system comprising:  
a solution comprising water, a nonyl phenyl ether, and a root-inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl;  
a rootless cutting having at least one leaf;  
wherein the root-inducing compound of formula I is in a concentration sufficient to induce the generation of roots from the rootless cutting when the solution is applied to the at least one leaf of the rootless cutting; and  
a sprayer to apply the solution to the rootless cutting.

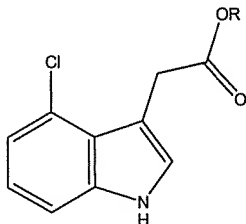
Claim 14. (Canceled)

Claim 15. (Previously Presented) The root-inducing system of claim 5 further comprising:  
an automated sprinkling system wherein said sprayer is permanently affixed to said automated sprinkling system.

Claim 16. (Currently Amended) A root-inducing combination comprising:

a solution selected from the group consisting of water, alcohols, and organics;

a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl;

wherein the solution is mixed with the compound until a liquid having a concentration of  $10^{-7}$  to  $10^{-2}$ M of the compound is formed; and,

a rootless cutting having at least one leaf ~~with a surface~~ and a stem planted in the soil, wherein the liquid is applied to the surface of the at least one leaf but not to the stem in the soil to induce root formation in the rootless cutting.

Claim 17. (Currently Amended) A method for promoting root formation on cuttings from plants comprising:

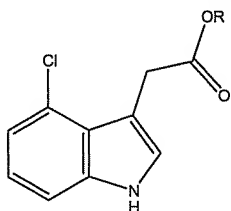
providing a solvent;

providing a root inducing compound, wherein the root inducing compound is capable of generating root formation in a rootless cutting that has at least one leaf and a stem in a soil,

mixing ~~a~~ the root inducing compound with the solvent to form a liquid;

applying the liquid to ~~a plant~~ at least one leaf of the rootless cutting but not to the stem in the soil to induce root formation.

Claim 18. (Previously Presented) The method of claim 17 further comprising:  
providing a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl; and  
forming a concentration of  $10^{-7}$  to  $10^{-2}$ M of the root inducing compound of formula I.

Claim 19. (Canceled)

Claim 20. (Previously Presented) The method of claim 17 further comprising:

adding beneficial agricultural chemical, wherein the beneficial agricultural chemical is selected from the group consisting of fertilizers, spreading agents and plant growth regulators.

Claim 21. (Previously Presented) A method for promoting root formation on cuttings from plants comprising:

- providing a solvent;
- providing a root-inducing compound, wherein the root inducing compound is capable of generating root formation in a rootless cutting;
- adding sodium dodecylbenzenesulfonate;
- mixing the root inducing compound with the solvent to form a liquid;
- applying the liquid to a plant leaf of the rootless cutting to induce root formation.

Claim 22. (Previously Presented) A method for promoting root formation on cuttings from plants comprising:

- providing a solvent;
- providing a root inducing compound, wherein the root inducing compound is capable of generating root formation in a rootless cutting;
- adding nonyl phenyl ether;
- mixing the root inducing compound with the solvent to form a liquid;
- applying the liquid to a plant leaf of the rootless cutting to induce root formation.

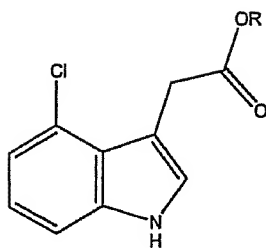
Claim 23. (Previously Presented) The method of claim 17 further comprising:

- placing the liquid in a sprayer capable of containing the solution.

Claim 24. (Currently Amended) A method for promoting root formation on cuttings from plants comprising:

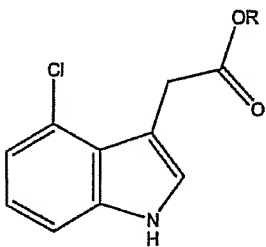
- selecting a stem without roots having at least one leaf;
- positioning the stem into a soil plug;
- providing a solvent;
- providing a root-inducing compound, wherein the root inducing compound is capable of generating root formation in a rootless cutting,;
- mixing a root-inducing compound with the solvent to form a liquid;
- applying the liquid by spraying to a plant leaf of the rootless cutting but not to the stem in the soil to induce root formation.

Claim 25. (New claim) The method of claim 21 wherein the step of providing the root inducing compound includes providing the root inducing compound of formula I



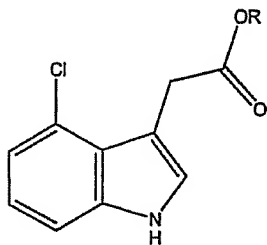
wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl.

Claim 26. (New claim) The method of claim 22 wherein the step of providing the root inducing compound includes providing a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl.

Claim 27. (New) The method of claim 24 wherein the step of providing a root-inducing compound includes providing a root inducing compound of formula I



wherein R is selected from the group consisting of hydrogen, allyl, methyl, ethyl, 1-propyl, 2-propyl, 1-butyl, isobutyl, (R)2-butyl, (S)2-butyl, tert-butyl and 1-pentyl.